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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,638

10/18/2004

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PU020126

6343

24498

7590

07/31/2008

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EXAMINER

AHMED, ENAM

ART UNIT

PAPER NUMBER

2112

MAIL DATE

DELIVERY MODE

07/31/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/511,638	<b>Applicant(s)</b> BOYCE, JILL MACDONALD	
	<b>Examiner</b> ENAM AHMED	<b>Art Unit</b> 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-9, 11-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 11-14 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>5/27/08 and 7/16/08</u> .                                     | 6) <input type="checkbox"/> Other: _____                          |

Final

This office action is in response to the applicants amendment filed on 4/22/08.

The objections to the drawings and specification are withdrawn.

Response to applicants amendment

The applicants arguments have been fully considered, and are not found persuasive.

Response to applicants remarks

On page 14 with respect to claim 1, the applicants mentions nowhere in the cited sections, nor in the entire disclosure, does Rhee disclose or suggest a forward Erasure Correction (FXC) encoder as recited by the present principles.

The Examiner disagrees with the statement, and points out the Rhee reference may not explicitly state “FXC” or Forward Erasure Correction, however a reed solomon erasure correcting code is being incorporated into an fec scheme. Thus, the Rhee reference teaches a forward Erasure Correction (FXC) encoder (column 6, line 63 – column 7, line 9), (column 7, lines 19-37), (column 8, line 33 – column 9, line 30).

On page 15 with respect to claims 1 and 12, the applicant mentions Rhee fails to disclose or suggest the concept of multiplexing the information superpackets and the FXC parity super packets “prior to” transmission.

The Examiner disagrees with the statement, and points out the Rhee reference teaches combining FEC or superpackets with RESCU or FXC super packets. Further, the Rhee reference states RESCU uses FEC packets to restore buffered frames, and the FEC packets then can be transmitted over a relatively longer period. Thus, the Rhee reference teaches the concept of multiplexing the information superpackets and the FXC parity super packets “prior to” transmission (column 2, line 45 – column 3, line 10).

On page 15 with respect to claims 9 and 20, the applicant mentions a review of Rhee does not disclose or suggest the use of FXC sync transport packets as claimed herein.

The Examiner disagrees with the statement, and would like to point out the Rhee reference discloses transport level recovery techniques in addition to synchronization points being used for the packets. Thus, the Rhee reference teaches use of FXC sync transport packets (column 4, lines 29-42), (column 4, line 50 – column 5, line 10) and (column 6, lines 5-18).

35 U.S.C. 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 5-9, 11-12, 14 and 16-20 are rejected under 35 U.S.C. 102(e) as being unpatentable over Rhee (U.S. Patent No. 6,421,387).

With respect to claims 1 and 12, the Rhee reference teaches a Forward Erasure Correction (FXC) encoder for computing FXC parity superpackets across information superpackets for subsequent recovery of any entire ones of the information superpackets that have been at least partially compromised due to synchronization loss (column 6, line 63 – column 7, line 9), (column 7, lines 19-37), (column 8, line 33 – column 9, line 30) and a multiplexer for multiplexing the information super packets and the FXC parity superpackets prior to any transmission thereof (column 2, line 45 - column 3, line 10).

With respect to claims 3 and 14, the Rhee reference teaches wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the information superpackets (column 1, line 60 – column 2, line 3), (column 2, line 45 – column 3, line 11).

With respect to claims 5 and 16, the Rhee reference teaches wherein said multiplexing step further comprises the step of assigning different Process IDentifiers (PIDS) to the FXC parity superpackets than the information superpackets (column 11, lines 3—39) and (column 11, lines 51-60).

With respect to claims 6 and 17, the Rhee reference teaches wherein the FXC encoder computes the FXC parity superpackets using Reed Solomon (RS) codes (column 6, line 63 - column 7, line 9)

With respect to claims 7 and 18, the Rhee reference teaches wherein the multiplexer generates FXC sync transport packets that indicate a correspondence between superpacket sequence number start positions (column 11, lines 40-60).

With respect to claims 8 and 19, the Rhee reference teaches wherein the FXC parity superpackets are computed over time periods corresponding to an expected length of at least one synchronization loss period (column 9, line 54 – column 10, line 4) and (column 10, lines 29-37).

With respect to claims 9 and 20, the Rhee reference teaches a Forward Erasure Correction (FXC) decoder for computing FXC parity superpackets across information superpackets for subsequent recovery of any entire ones of the information superpackets that have been at least partially compromised due to synchronization loss (column 5, lines 38-55), (column 6, line 63 – column 7, line 9) and wherein said FXC decoder further decodes FXC sync transport packets to determine superpacket sequence numbers and superpacket positions for both the FXC parity superpackets and the information superpackets (column 4, lines 29-42), (column 4, line 50 – column 5, line 10) and (column 6, lines 5-18).

With respect to claim 11, the Rhee reference teaches wherein said FXC decoder is adapted to receive an error signal that indicates an erasure position corresponding to the information superpackets that have been at least partially compromised due to the synchronization loss (column 5, line 56 – column 6, line 4).

35 U.S.C. 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rhee (U.S. Patent No. 6,421,387) in view of Schuster et al. (U.S. Patent No. 6,145,109).

With respect to claims 2 and 13, all of the limitations of claims 1 and 12 have been addressed. The Rhee reference does not teach wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the information superpackets. The Schuster et al. reference teaches wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the information superpackets (column 5, lines 49-62). Thus it would have been obvious to one of ordinary skill in the art at the time of the invention was made to have combined the references Rhee and Schuster to incorporate wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the information

superpackets into the claimed invention. The motivation for wherein the FXC encoder computes the FXC parity superpackets across the information superpackets at one byte per each of the information superpackets is a powerful system for handling packet loss that may arise in the communication of real time media signals (column 2, lines 10-11 - Schuster et al. reference)

### Conclusion

1. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

.1 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Enam Ahmed whose telephone number is 571-270-1729. The examiner can normally be reached on Mon-Fri from 8:30 A.M. to 5:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques, can be reached on 571-272-6962.



The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

EA

7/22/08

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